

Quiet Bubble Development Tool rental – Solicitation Number: 17-22134

Advance Contract Award Notice (ACAN): 17-22134

An ACAN is a public notice indicating to the supplier community that a department or agency intends to award a contract for goods, services or construction to a pre-identified supplier, thereby allowing other suppliers to signal their interest in bidding, by submitting a statement of capabilities. If no supplier submits a statement of capabilities that meets the requirements set out in the ACAN, on or before the closing date stated in the ACAN, the contracting officer may then proceed with the award to the pre-identified supplier.

Definition of the requirement:

The National Research Council, Aerospace, Aeroacoustics and Structural Dynamics section has a requirement to rent for 2 months a Quiet Bubble Development Tool for scientific performance testing.

NRC will be performing exhaustive performance evaluations of the Silentium QBDT as part of their commitment and long term effort to select the appropriate solution for their specific applications. NRC will provide, as part of this project, testing services in a high fidelity immersive sound reproduction facility to evaluate the performance of the Silentium QBDT system under objective and subjective conditions.

Criteria for assessment of the Statement of Capabilities (Minimum Essential Requirements):

1. System

- 1.1. System must be able to perform broadband noise reduction between 50 Hz and 1kHz
- 1.2. The system should be based on a feed-forward Algorithm.
- 1.3. The system must include the ability to use up to 8 reference sensors and 10 speakers for spatial attenuation.
- 1.4. System must achieve spatial Noise attenuation by optimizing 8 error microphones.
- 1.5. The System order, i.e., number of components (up to 8 sensors x 10 speakers x 8 error microphones) should be flexible to meet the actual needs as a cost effective solution.
- 1.6. System should include fixed tuning and adaptive tuning capabilities to deal with environment changes.
- 1.7. System must have self-calibration and self-tuning real-time capabilities.
- 1.8. System must have a Standalone mode.
- 1.9. Must be able to calibrate the ANC performance on more than one seat without any mutual interference.
- 1.10. System should be able to handle analog input signals.
- 1.11. System should include integrated power amplifier to drive speakers.

2. User interface

- 2.1. Must have a user friendly USB, PC-based interface that allows users to Calibration and tuning the system, Control digital gain of sensors, microphones and speakers.
- 2.2. Must have a flexible calibration process with an option to select the number of components, and change smoothly within different system configuration.
- 2.3. As part of the calibration process, the system must be able to simulate the Active Noise Control (ANC) performance and create calibration filters.
- 2.4. Must have a real time (RT) display of all the system signals

3. Standards and Physical requirements

- 3.1. Must have a slim form factor with height inferior or equal to 8cm and volume inferior or equal to 0.055m³

- 3.2. Must be in accordance with ISO/IEC 15504 Software Process Improvement and Capability Determination (SPICE)
- 3.3. System must have the generic controller for active acoustics tested under Highly Accelerated Life Test (HALT).
- 3.4. System must withstand and properly operate at temperatures from -24C to 68C.
- 3.5. System must withstand and properly operate at vibration levels of up to 8g RMS.

Applicability of the trade agreement(s) to the procurement:

North American Free Trade Agreement (NAFTA) and CFTA International Trade Agreement

Justification for the Pre-Identified Supplier:

There are no other Broad Frequency Band Active Noise Control solutions available on the market with all the capabilities as the Quiet Bubble Development Tool by Silentium.

Limited Tendering Procedures/applicable:

1016 b. where, for works of art, or for reasons connected with the protection of patents, copyrights or other exclusive rights, or proprietary information or where there is an absence of competition for technical reasons, the goods or services can be supplied only by a particular supplier and no reasonable alternative or substitute exists.

Ownership of Intellectual Property: No Intellectual Property will be generated from this contract, all Intellectual Property belongs to Silentium , should any Intellectual Property arise as a result of this contract, Ownership of any Foreground Intellectual Property will remain with the Contractor.

Estimated Contract Start date and End date: April 1, 2018 – September 30, 2018

Estimated Contract term: The initial contract will be for 3 months however, NRC reserves the right to award additional contracts of similar scope of work for up to three years after this solicitation closes.

Cost estimate of the proposed contract: (initial contract \$ 97,000.00 USD or 112,778.96 Cad)

Proposed Supplier: Silentium Ltd, 5 GOLDA MEIR Street, NESS ZIONA, Israel.

Suppliers' right to submit a statement of capabilities: Suppliers who consider themselves fully qualified and available to provide the goods, services or construction services described in the ACAN may submit a statement of capabilities in writing to the contact person identified in this notice on or before the closing date of this notice. The statement of capabilities must clearly demonstrate how the supplier meets the advertised requirements.

Closing date for a submission of a statement of capabilities: ~~April 1~~ ~~Mar 9, 20th~~18, 2PM Eastern

Inquiries and submission of statements of capabilities:

Procurement Officer: Steve Cassidy Tel: (613) 993-0851; Email: Steve.Cassidy@nrc-cnrc.gc.ca

